

MRSA: Methicillin-resistant Staphylococcus aureus

Methicillin-resistant Staphylococcus aureus (MRSA) is cause for significant concern. It is a bacterium that causes infections in different parts of the body. It is more difficult to treat than most strains of staphylococcus aureus as it has become resistant to some commonly used antibiotics. MRSA is sometimes called a “super bug.”

Staphylococcus aureus or “Staph” is found on the skin or nasal lining in up to 30% of healthy individuals. In this setting of “colonization” it usually does not cause symptoms. However when the skin is damaged in some way and the bacterium enters the skin it can cause a wide range of problems from a mild pimple to severe illness.

Initially, most Staph infections were sensitive to penicillin. However in the early 1960's, the term methicillin-resistant staph aureus was derived as it was found that many infections from Staph aureus had become resistant to penicillin and methicillin. Alternate antibiotics can be used but it is becoming more difficult to treat as time goes on.

How is MRSA spread?

You can become “colonized” with MRSA, meaning that you carry the bacteria on your skin or in your nose but have no signs or symptoms of illness. This happens in a variety of ways:

- By touching the skin of another person who is colonized with MRSA
- By touching contaminated surfaces (towel, bedding, countertop, door handle)

You can develop an infection if your skin is colonized and you sustain a cut, scrape or other wound on the skin. The bacteria then enter and cause the infection.

Symptoms:

Most people have signs of a skin infection:

- May appear spontaneously
- May be mistaken for a spider bite
- May have a single raised red bump that is tender
- May have a cluster of “pimples”
- May have a large tender lump that drains pus
- The area may enlarge and become more tender, red, and swollen.

Other parts of the body can become infected if the bacteria enter the bloodstream.

- Heart valves
- Bones and joints
- Lungs
- Around devices – IV line, pacemaker, replacement joints

Prevention

The best way to prevent and control MRSA in the community is not clear. The Centers for Disease Control and Prevention has made recommendations:

- Keep hands clean by washing thoroughly with soap and water. After wetting hands and applying plain soap, the entire surface of the hands, fingers, and wrists should be rubbed together for 15 to 30 seconds. Special attention should be paid to the fingernails and between the fingers. Then rinse thoroughly and dry with a paper towel.
- Alcohol-based hand sanitizers are an alternative if a sink is not available. The hand sanitizer should be rubbed over the entire surface of the hands until dry and may be used several times.
- Cuts and scrapes should be kept clean, dry, and covered with a bandage until healed.
- Avoid touching other people's wounds or bandages.
- Avoid sharing personal items such as towels, washcloths, razors, clothing, and bedding. Brushes, combs, and makeup should not be shared.

If someone in the home has a known MRSA infection special care must be taken:

- Hands should be cleaned thoroughly with soap and water or an alcohol-based hand sanitizer immediately after touching the skin or any item that has come in direct contact with a draining wound.
- Wounds that are draining should be kept covered with clean, dry bandages.
- People with open wounds should not participate in activities involving skin-to-skin contact with others until wounds are fully healed.
- Clothing, bedding, towels and other items that come in contact with wound drainage should be laundered and dried thoroughly.
- Environmental surfaces should be cleaned with over-the-counter cleaners with activity against Staph aureus.